UG

CHEMICAL ENGG. (B.TECH 4Y) - CH

CHEMICAL ENGG.(M.TECH DUAL 5Y) - CH1

Subno	SubName(Click to get Syllabus(PDF))	Ltp	Crd	Sub Type
	Semester No-1/2			
BS10003	SCIENCE OF LIVING SYSTEMS	2-0-0	2	FC
CE13003	**ENGINEERING DRAWING AND COMPUTER GRAPHICS**	1-0-3	3	FC
CS10003	**PROGAMMING AND DATA STRUCTURES**	3-0-0	3	FC
CS19003	**PROGAMMING AND DATA STRUCTURES LABORATORY**	0-0-3	2	FC
CY11003	**CHEMISTRY**	3-1-0	4	FC
CY19003	**CHEMISTRY LABORATORY**	0-0-3	2	FC
DY17003	DIY PROJECT	0-0-3	2	FC
EA10007	**EXTRA ACADEMIC ACTIVITY-I**	0-0-3	1	FC
EA10008	**EXTRA ACADEMIC ACTIVITY-II**	0-0-3	1	FC
EE11003	**ELECTRICAL TECHNOLOGY**	3-1-0	4	FC
EN19003	**ENGINEERING LABORATORY**	0-0-3	2	FC
EV10003	**ENVIRONMENTAL SCIENCE**	2-0-0	2	FC
HS13003	**ENGLISH FOR COMMUNICATION**	2-0-2	3	FC
MA11003	**ADVANCED CALCULUS**	3-1-0	4	FC
MA11004	**LINEAR ALGEBRA, NUMERICAL AND COMPLEX ANALYSIS**	3-1-0	4	FC
ME11003	**BASIC ENGINEERING MECHANICS**	3-1-0	4	FC
PH11003	**PHYSICS OF WAVES**	3-1-0	4	FC

PH19003	PHYSICS LABORATORY	0-0-3	2	FC
Semester No- 3				
CH21201	CHEMICAL ENGINEERING THERMODYNAMICS	3-1-0	4	Depth CORE XIX
CH21203	CHEMICAL PROCESS CALCULATIONS	3-1-0	4	Depth CORE XX
CH21205	MECHANICAL OPERATIONS	3-1-0	4	Depth CORE XXI
CH21207	FLUID MECHANICS	3-1-0	4	Depth CORE XXII
CH29201	FUEL LABORATORY	0-0-3	2	Depth CORE XXIII
EA10009	EXTRA ACADEMIC ACTIVITY-III	0-0-3	1	Depth CORE XXIV
				HSS-Breadth I
Semester No- 4				
EA10010	EXTRA ACADEMIC ACTIVITY-IV	0-0-3	1	Depth CORE XXIX
CH21202	MASS TRANSFER I	3-1-0	4	Depth CORE XXV
CH21204	HEAT TRANSFER	3-1-0	4	Depth CORE XXVI
CH21206	REACTION ENGINEERING	3-1-0	4	Depth CORE XXVII
CH29202	FLUID FLOW LABORATORY AND DESIGN	0-0-3	2	Depth CORE XXVIII
MA20202	TRANSFORM CALCULUS	3-0-0	3	Depth CORE XXX
				Breadth Elective I
Semester No- 5				
CH21208	INSTRUMENTATION AND PROCESS CONTROL	3-1-0	4	Depth CORE XXXI
CH31010	MASS TRANSFER II	3-1-0	4	Depth CORE XXXII
CH31203	COMPUTER AIDED PROCESS ENGINEERING	3-1-0	4	Depth CORE XXXIII
CH30014	CHEMICAL PROCESS TECHNOLOGY	3-0-0	3	Depth CORE XXXIV
CH49015	REACTION ENGINEERING LABORATORY	0-0-3	2	Depth CORE XXXV

CH39023	PROCESS EQUIPMENT DESIGN-I	1-0-3	3	Depth CORE XXXVI
CH39015	MECHANICAL OPERATIONS & HEAT TRANSFER LABORATORY	0-0-3	2	Depth CORE XXXVII
Semester No- 6				
CH39006	MASS TRANSFER LABORATORY	0-0-3	2	Depth CORE XL
CH49019	COMPUTER AIDED PROCESS ENGINEERING LAB.	0-0-3	2	Depth CORE XLI
CH30012	TRANSPORT PHENOMENA	3-1-0	4	Depth CORE XLII
CH39020	INSTRUMENTATION AND PROCESS CONTROL LABORATORY	0-0-3	2	Depth CORE XXXIX
CH39202	PROCESS EQUIPMENT DESIGN-II	1-0-3	3	Depth CORE XXXVIII
				Breadth Elective II
				Depth Elective I
LIST OF ELECTIVES				
CH30202	PREDICTIVE MODELLING APPLICATIONS IN CHEMICAL ENGINEERING	3-0-0	3	Depth Elective I
CH40001	BIOCHEMICAL ENGINEERING	3-0-0	3	Depth Elective I
CH42002	NON-CONVENTIONAL ENERGY ENGG.	3-0-0	3	Depth Elective I
CH42010	PROCESS PLANT OPERATION & SAFETY	3-0-0	3	Depth Elective I
CH42012	SYSTEMS ENGINEERING	3-0-0	3	Depth Elective I
CH42014	FUEL TECHNOLOGY	3-0-0	3	Depth Elective I
CH60016	FUNDAMENTALS OF BIOENERGY	3-0-0	3	Depth Elective I
CH62003	PROCESS MODELLING AND SIMULATION	3-1-0	4	Depth Elective I
CH62004	FLOW OF COMPLEX MIXTURES	3-1-0	4	Depth Elective I
CH62006	REAL TIME INTELLIGENT PROCESS SYSTEMS	3-0-0	3	Depth Elective I
CH62008	NOVEL SEPARATION PROCESSES	3-0-0	3	Depth Elective I

Code	Course	L-T-P	Credits	Type
CH62015	**ADVANCED THERMODYNAMICS**	3-1-0	4	Depth Elective I
CH62016	**CHEMICAL REACTOR ANALYSIS**	3-1-0	4	Depth Elective I
CH62018	**COMBUSTION ENGINEERING**	3-1-0	4	Depth Elective I
CH62020	**MINERAL BENEFICIATION**	3-1-0	4	Depth Elective I
CH62022	**REACTOR STABILITY AND CONTROL**	3-0-0	3	Depth Elective I
CH62024	**COMPUTER PROCESS CONTROL**	3-0-0	3	Depth Elective I
CH62026	**FLUIDIZATION ENGINEERING**	3-0-0	3	Depth Elective I
CH62028	**PROJECT ENGINEERING AND MANAGEMENT**	3-0-0	3	Depth Elective I
CH62035	**TRANSPORT PROCESSES IN PHYSIOLOGICAL SYSTEMS**	3-1-0	4	Depth Elective I
CH62038	**HAZARD ANALYSIS AND RISK MANAGEMENT IN CHEMICAL INDUSTRY**	3-1-0	4	Depth Elective I
CH62045	**CHEMICAL ENGINEERING PRINCIPLES IN POLYMER PROCESSING**	3-1-0	4	Depth Elective I
CH62048	**STORAGE AND HANDLING OF MATERIALS**	3-1-0	4	Depth Elective I
CH62050	**HAZARDOUS WASTE TREATMENT & MANAGEMENT**	3-0-0	3	Depth Elective I
CH62052	**INSTABILITY & PATTERNING IN THIN POLYMER FILM**	3-1-0	4	Depth Elective I
CH70002	**TRANSPORT IN POROUS MEDIA**	3-0-0	3	Depth Elective I
Semester No- 7				
CH61015	**ADVANCED MATHEMATICAL TECHNIQUES IN CHEMICAL ENGINEERING**	3-1-0	4	Depth CORE XLIII
CH61011	**ADVANCED FLUID DYNAMICS**	3-1-0	4	Depth CORE XLIV
CH49201	**M.TECH SEMINAR**	0-0-3	2	Depth CORE XLV
				Breadth Elective III
				Depth Elective II
				Depth Elective III

				Project I

	LIST OF ELECTIVES			
CH42006	**COMPUTER METHODS IN CHEM. ENGG.**	3-0-0	3	Depth Elective II
CH61017	**RHEOLOGY OF COMPLEX FLUIDS**	3-1-0	4	Depth Elective II
CH62001	**OPTIMIZATION TECHNIQUES IN PROCESS DESIGN**	3-1-0	4	Depth Elective II
CH62007	**INDUSTRIAL POLLUTION CONTROL**	3-0-0	3	Depth Elective II
CH62009	**PETROLEUM REFINERY ENGINEERING**	3-0-0	3	Depth Elective II
CH62010	**PETROCHEMICAL TECHNOLOGY**	3-0-0	3	Depth Elective II
CH62021	**MULTIPHASE FLOW**	3-1-0	4	Depth Elective II
CH62023	**RESERVOIR ENGINEERING**	3-1-0	4	Depth Elective II
CH62033	**GREEN TECHNOLOGY**	3-0-0	3	Depth Elective II
CH62041	**POLYMER ENGINEERING**	3-0-0	3	Depth Elective II
CH62043	**ENERY CONSERVATION IN PROCESS INDUSTRIES**	3-0-0	3	Depth Elective II
CH62046	**MANUFACTURING AND CHARACTERISATION OF POLYMER MATRIX COMPOSITES**	3-1-0	4	Depth Elective II
CH62047	**CFD APPLICATIONS IN CHEMICAL PROCESSING**	3-1-0	4	Depth Elective II
CH62049	**MICROSCALE TRANSPORT PROCESSES**	3-0-0	3	Depth Elective II
CH71002	**COMPUTATIONAL MODELING OF MULTIPHASE REACTIVE FLOWS**	3-1-0	4	Depth Elective II
CH42006	**COMPUTER METHODS IN CHEM. ENGG.**	3-0-0	3	Depth Elective III
CH61017	**RHEOLOGY OF COMPLEX FLUIDS**	3-1-0	4	Depth Elective III
CH62001	**OPTIMIZATION TECHNIQUES IN PROCESS DESIGN**	3-1-0	4	Depth Elective III
CH62007	**INDUSTRIAL POLLUTION CONTROL**	3-0-0	3	Depth Elective III
CH62009	**PETROLEUM REFINERY ENGINEERING**	3-0-0	3	Depth Elective

	ENGINEERING	0		III
CH62010	PETROCHEMICAL TECHNOLOGY	3-0-0	3	Depth Elective III
CH62021	MULTIPHASE FLOW	3-1-0	4	Depth Elective III
CH62023	RESERVOIR ENGINEERING	3-1-0	4	Depth Elective III
CH62033	GREEN TECHNOLOGY	3-0-0	3	Depth Elective III
CH62041	POLYMER ENGINEERING	3-0-0	3	Depth Elective III
CH62043	ENERY CONSERVATION IN PROCESS INDUSTRIES	3-0-0	3	Depth Elective III
CH62046	MANUFACTURING AND CHARACTERISATION OF POLYMER MATRIX COMPOSITES	3-1-0	4	Depth Elective III
CH62047	CFD APPLICATIONS IN CHEMICAL PROCESSING	3-1-0	4	Depth Elective III
CH62049	MICROSCALE TRANSPORT PROCESSES	3-0-0	3	Depth Elective III
CH71002	COMPUTATIONAL MODELING OF MULTIPHASE REACTIVE FLOWS	3-1-0	4	Depth Elective III
CH47023	PROJECT-I	0-0-6	4	Project I
Semester No- 8				
CH61012	ADVANCED MASS TRANSFER	3-1-0	4	Depth CORE XLVI
CH61014	ADVANCED HEAT TRANSFER	3-1-0	4	Depth CORE XLVII
CH61016	PROCESS DYNAMICS & CONTROL	3-1-0	4	Depth CORE XLVIII
				Depth Elective IV
				Depth Elective V
				Project II
LIST OF ELECTIVES				
CH30202	PREDICTIVE MODELLING APPLICATIONS IN CHEMICAL ENGINEERING	3-0-0	3	Depth Elective IV
CH40001	BIOCHEMICAL ENGINEERING	3-0-0	3	Depth Elective IV
CH42002	NON-CONVENTIONAL ENERGY ENGG.	3-0-0	3	Depth Elective IV

CH42010	PROCESS PLANT OPERATION & SAFETY	3-0-0	3	Depth Elective IV
CH42012	SYSTEMS ENGINEERING	3-0-0	3	Depth Elective IV
CH42014	FUEL TECHNOLOGY	3-0-0	3	Depth Elective IV
CH60016	FUNDAMENTALS OF BIOENERGY	3-0-0	3	Depth Elective IV
CH62003	PROCESS MODELLING AND SIMULATION	3-1-0	4	Depth Elective IV
CH62004	FLOW OF COMPLEX MIXTURES	3-1-0	4	Depth Elective IV
CH62006	REAL TIME INTELLIGENT PROCESS SYSTEMS	3-0-0	3	Depth Elective IV
CH62008	NOVEL SEPARATION PROCESSES	3-0-0	3	Depth Elective IV
CH62015	ADVANCED THERMODYNAMICS	3-1-0	4	Depth Elective IV
CH62016	CHEMICAL REACTOR ANALYSIS	3-1-0	4	Depth Elective IV
CH62018	COMBUSTION ENGINEERING	3-1-0	4	Depth Elective IV
CH62020	MINERAL BENEFICIATION	3-1-0	4	Depth Elective IV
CH62022	REACTOR STABILITY AND CONTROL	3-0-0	3	Depth Elective IV
CH62024	COMPUTER PROCESS CONTROL	3-0-0	3	Depth Elective IV
CH62026	FLUIDIZATION ENGINEERING	3-0-0	3	Depth Elective IV
CH62028	PROJECT ENGINEERING AND MANAGEMENT	3-0-0	3	Depth Elective IV
CH62035	TRANSPORT PROCESSES IN PHYSIOLOGICAL SYSTEMS	3-1-0	4	Depth Elective IV
CH62038	HAZARD ANALYSIS AND RISK MANAGEMENT IN CHEMICAL INDUSTRY	3-1-0	4	Depth Elective IV
CH62045	CHEMICAL ENGINEERING PRINCIPLES IN POLYMER PROCESSING	3-1-0	4	Depth Elective IV
CH62048	STORAGE AND HANDLING OF MATERIALS	3-1-0	4	Depth Elective IV
CH62050	HAZARDOUS WASTE TREATMENT & MANAGEMENT	3-0-0	3	Depth Elective IV

CH62052	INSTABILITY & PATTERNING IN THIN POLYMER FILM	3-1-0	4	Depth Elective IV
CH70002	TRANSPORT IN POROUS MEDIA	3-0-0	3	Depth Elective IV
CH30202	PREDICTIVE MODELLING APPLICATIONS IN CHEMICAL ENGINEERING	3-0-0	3	Depth Elective V
CH40001	BIOCHEMICAL ENGINEERING	3-0-0	3	Depth Elective V
CH42002	NON-CONVENTIONAL ENERGY ENGG.	3-0-0	3	Depth Elective V
CH42010	PROCESS PLANT OPERATION & SAFETY	3-0-0	3	Depth Elective V
CH42012	SYSTEMS ENGINEERING	3-0-0	3	Depth Elective V
CH42014	FUEL TECHNOLOGY	3-0-0	3	Depth Elective V
CH60016	FUNDAMENTALS OF BIOENERGY	3-0-0	3	Depth Elective V
CH62003	PROCESS MODELLING AND SIMULATION	3-1-0	4	Depth Elective V
CH62004	FLOW OF COMPLEX MIXTURES	3-1-0	4	Depth Elective V
CH62006	REAL TIME INTELLIGENT PROCESS SYSTEMS	3-0-0	3	Depth Elective V
CH62008	NOVEL SEPARATION PROCESSES	3-0-0	3	Depth Elective V
CH62015	ADVANCED THERMODYNAMICS	3-1-0	4	Depth Elective V
CH62016	CHEMICAL REACTOR ANALYSIS	3-1-0	4	Depth Elective V
CH62018	COMBUSTION ENGINEERING	3-1-0	4	Depth Elective V
CH62020	MINERAL BENEFICIATION	3-1-0	4	Depth Elective V
CH62022	REACTOR STABILITY AND CONTROL	3-0-0	3	Depth Elective V
CH62024	COMPUTER PROCESS CONTROL	3-0-0	3	Depth Elective V
CH62026	FLUIDIZATION ENGINEERING	3-0-0	3	Depth Elective V
CH62028	PROJECT ENGINEERING AND MANAGEMENT	3-0-0	3	Depth Elective V
CH62035	TRANSPORT PROCESSES IN	3-1-	4	Depth Elective

CH62035	PHYSIOLOGICAL SYSTEMS	1-0	4	Elective V
CH62038	HAZARD ANALYSIS AND RISK MANAGEMENT IN CHEMICAL INDUSTRY	3-1-0	4	Depth Elective V
CH62045	CHEMICAL ENGINEERING PRINCIPLES IN POLYMER PROCESSING	3-1-0	4	Depth Elective V
CH62048	STORAGE AND HANDLING OF MATERIALS	3-1-0	4	Depth Elective V
CH62050	HAZARDOUS WASTE TREATMENT & MANAGEMENT	3-0-0	3	Depth Elective V
CH62052	INSTABILITY & PATTERNING IN THIN POLYMER FILM	3-1-0	4	Depth Elective V
CH70002	TRANSPORT IN POROUS MEDIA	3-0-0	3	Depth Elective V
CH47024	PROJECT-II	0-0-9	6	Project II
Semester No- 9				
CH48013	INDUSTRIAL TRAINING	0-0-0	2	Depth CORE XLIX
				Breadth Elective IV
				Depth Elective VI
				Project III
LIST OF ELECTIVES				
CH42006	COMPUTER METHODS IN CHEM. ENGG.	3-0-0	3	Depth Elective VI
CH61017	RHEOLOGY OF COMPLEX FLUIDS	3-1-0	4	Depth Elective VI
CH62001	OPTIMIZATION TECHNIQUES IN PROCESS DESIGN	3-1-0	4	Depth Elective VI
CH62007	INDUSTRIAL POLLUTION CONTROL	3-0-0	3	Depth Elective VI
CH62009	PETROLEUM REFINERY ENGINEERING	3-0-0	3	Depth Elective VI
CH62010	PETROCHEMICAL TECHNOLOGY	3-0-0	3	Depth Elective VI
CH62021	MULTIPHASE FLOW	3-1-0	4	Depth Elective VI
CH62023	RESERVOIR ENGINEERING	3-1-0	4	Depth Elective VI
CH62033	GREEN TECHNOLOGY	3-0-0	3	Depth Elective VI

CH62041	POLYMER ENGINEERING	3-0-0	3	Depth Elective VI
CH62043	ENERY CONSERVATION IN PROCESS INDUSTRIES	3-0-0	3	Depth Elective VI
CH62046	MANUFACTURING AND CHARACTERISATION OF POLYMER MATRIX COMPOSITES	3-1-0	4	Depth Elective VI
CH62047	CFD APPLICATIONS IN CHEMICAL PROCESSING	3-1-0	4	Depth Elective VI
CH62049	MICROSCALE TRANSPORT PROCESSES	3-0-0	3	Depth Elective VI
CH71002	COMPUTATIONAL MODELING OF MULTIPHASE REACTIVE FLOWS	3-1-0	4	Depth Elective VI
CH57003	M.TECH. PROJECT I	0-0-0	12	Project III
Semester No- 10				
CH69202	M-TECH LABORATORY	0-0-3	2	Depth CORE L
				Depth Elective VII
				Depth Elective VIII
				Project IV
LIST OF ELECTIVES				
CH30202	PREDICTIVE MODELLING APPLICATIONS IN CHEMICAL ENGINEERING	3-0-0	3	Depth Elective VII
CH40001	BIOCHEMICAL ENGINEERING	3-0-0	3	Depth Elective VII
CH42002	NON-CONVENTIONAL ENERGY ENGG.	3-0-0	3	Depth Elective VII
CH42010	PROCESS PLANT OPERATION & SAFETY	3-0-0	3	Depth Elective VII
CH42012	SYSTEMS ENGINEERING	3-0-0	3	Depth Elective VII
CH42014	FUEL TECHNOLOGY	3-0-0	3	Depth Elective VII
CH60016	FUNDAMENTALS OF BIOENERGY	3-0-0	3	Depth Elective VII
CH62003	PROCESS MODELLING AND SIMULATION	3-1-0	4	Depth Elective VII
CH62004	FLOW OF COMPLEX MIXTURES	3-1-0	4	Depth Elective VII

Code	Course	L-T-P	Credits	Type
CH62006	REAL TIME INTELLIGENT PROCESS SYSTEMS	3-0-0	3	Depth Elective VII
CH62008	NOVEL SEPARATION PROCESSES	3-0-0	3	Depth Elective VII
CH62015	ADVANCED THERMODYNAMICS	3-1-0	4	Depth Elective VII
CH62016	CHEMICAL REACTOR ANALYSIS	3-1-0	4	Depth Elective VII
CH62018	COMBUSTION ENGINEERING	3-1-0	4	Depth Elective VII
CH62020	MINERAL BENEFICIATION	3-1-0	4	Depth Elective VII
CH62022	REACTOR STABILITY AND CONTROL	3-0-0	3	Depth Elective VII
CH62024	COMPUTER PROCESS CONTROL	3-0-0	3	Depth Elective VII
CH62026	FLUIDIZATION ENGINEERING	3-0-0	3	Depth Elective VII
CH62028	PROJECT ENGINEERING AND MANAGEMENT	3-0-0	3	Depth Elective VII
CH62035	TRANSPORT PROCESSES IN PHYSIOLOGICAL SYSTEMS	3-1-0	4	Depth Elective VII
CH62038	HAZARD ANALYSIS AND RISK MANAGEMENT IN CHEMICAL INDUSTRY	3-1-0	4	Depth Elective VII
CH62045	CHEMICAL ENGINEERING PRINCIPLES IN POLYMER PROCESSING	3-1-0	4	Depth Elective VII
CH62048	STORAGE AND HANDLING OF MATERIALS	3-1-0	4	Depth Elective VII
CH62050	HAZARDOUS WASTE TREATMENT & MANAGEMENT	3-0-0	3	Depth Elective VII
CH62052	INSTABILITY & PATTERNING IN THIN POLYMER FILM	3-1-0	4	Depth Elective VII
CH70002	TRANSPORT IN POROUS MEDIA	3-0-0	3	Depth Elective VII
CH30202	PREDICTIVE MODELLING APPLICATIONS IN CHEMICAL ENGINEERING	3-0-0	3	Depth Elective VIII
CH40001	BIOCHEMICAL ENGINEERING	3-0-0	3	Depth Elective VIII
CH42002	NON-CONVENTIONAL ENERGY ENGG.	3-0-0	3	Depth Elective VIII
CH42010	PROCESS PLANT OPERATION & SAFETY	3-0-0	3	Depth Elective VIII
CH42012	SYSTEMS ENGINEERING	3-0-0	3	Depth Elective VIII

CH42012	SYSTEMS ENGINEERING	3-0-0	3	Depth Elective VIII
CH42014	FUEL TECHNOLOGY	3-0-0	3	Depth Elective VIII
CH60016	FUNDAMENTALS OF BIOENERGY	3-0-0	3	Depth Elective VIII
CH62003	PROCESS MODELLING AND SIMULATION	3-1-0	4	Depth Elective VIII
CH62004	FLOW OF COMPLEX MIXTURES	3-1-0	4	Depth Elective VIII
CH62006	REAL TIME INTELLIGENT PROCESS SYSTEMS	3-0-0	3	Depth Elective VIII
CH62008	NOVEL SEPARATION PROCESSES	3-0-0	3	Depth Elective VIII
CH62015	ADVANCED THERMODYNAMICS	3-1-0	4	Depth Elective VIII
CH62016	CHEMICAL REACTOR ANALYSIS	3-1-0	4	Depth Elective VIII
CH62018	COMBUSTION ENGINEERING	3-1-0	4	Depth Elective VIII
CH62020	MINERAL BENEFICIATION	3-1-0	4	Depth Elective VIII
CH62022	REACTOR STABILITY AND CONTROL	3-0-0	3	Depth Elective VIII
CH62024	COMPUTER PROCESS CONTROL	3-0-0	3	Depth Elective VIII
CH62026	FLUIDIZATION ENGINEERING	3-0-0	3	Depth Elective VIII
CH62028	PROJECT ENGINEERING AND MANAGEMENT	3-0-0	3	Depth Elective VIII
CH62035	TRANSPORT PROCESSES IN PHYSIOLOGICAL SYSTEMS	3-1-0	4	Depth Elective VIII
CH62038	HAZARD ANALYSIS AND RISK MANAGEMENT IN CHEMICAL INDUSTRY	3-1-0	4	Depth Elective VIII
CH62045	CHEMICAL ENGINEERING PRINCIPLES IN POLYMER PROCESSING	3-1-0	4	Depth Elective VIII